

# MASSACRE BROCHURES

No:1

## "*Botulinum Toxin*"

**Type:** Chemical/Biological Weapon

**Mass Fatality:** Extremely High

**Productivity:** Hard

**Backstory:** Botulinum toxin is known for being "the most lethal chemical". It causes botulism, paralysis and death. 10ng/kg for humans is lethal when inhaled. Its source is the anaerobic bacteria named Clostridium botulinum. The bacteria can be found in soil samples, rivers, on an apple, feces etc.

Aum Shinrikyo tried to use this weapon in 1990, 1993, 1994 and 1995. All their attempts failed since they thought they captured the BT, but they did not. Their plan was to spray the chemical from back of a van.

[https://www.nonproliferation.org/wp-content/uploads/2016/06/aum\\_chrn.pdf](https://www.nonproliferation.org/wp-content/uploads/2016/06/aum_chrn.pdf)

### How to Make:

For producing and isolating a specific type of organism from a source, selective medium method can be applied. But must be kept in the mind, since the substance is extremely dangerous production in large quantities might be even harder and risky. Following information will be cited for further reading.

Please first test the methods in small samples before producing in larger quantities. You can work on different samples for C. botulinum, you can use soil samples, water from deep down of a river or natural fruits. You will need different chemicals by different recipes for isolation.

I. 2000s <https://www.sigmadatalink.com/deepweb/assets/sigmadatalink/product/documents/308/498/c8345dat.pdf>

There are agar products specifically for isolating C. Botulinum. Those can directly bought or imitated for the best results.

<b>Components</b>		<b>Preparation Instructions</b>
<b>Item</b>	<b>g/L</b>	
Casein Enzymic Hydrolysate	40.00	Suspend 37 grams of Clostridium Botulinum Isolation
Yeast Extract	5.00	Agar Base in 450 mls of distilled water. Sterilize by
Dextrose	2.00	autoclaving at 15 lbs. pressure (121 °C) for 15 minutes.
Disodium Phosphate	5.00	Cool to 50-55°C. Aseptically add 50 mls of sterile
Sodium Chloride	2.00	(E7899) Egg Yolk Emulsion and the reconstituted
Magnesium Sulphate	0.01	contents (in 2.0 ml ethanol) of one vial of (C3722)
Agar	20.00	Clostridium Botulinum Isolation Agar Base Supplement
		(C.B. I. Supplement) to the agar base. The C.B.I

Supplement can also be prepared by mixing 125.0 mg D-Cycloserine (C6880), 38.0 mg of Sulphamethoxazole (S7507) and 2.0 mg of Trimethoprim (T7883) in 2.0 ml of ethanol. Mix well and pour into sterile petri plates.

**Storage**

Store the dehydrated medium at 24°C and prepared medium at 2-8°C.

**Product Profile**

Appearance	Light yellow colored, homogeneous, free flowing powder.
Gelling	Firm.
Color and Clarity	Basal medium yields a yellow colored slightly opalescent gel. With the addition of egg yolk emulsion and the C.B.I. supplement, a light colored opalescent gel forms in petri plates.
Cultural Response	Cultural characteristics are observed after 48 hours at 35°C when incubated anaerobically.

Clostridium botulinum does not necessarily produce gas when it grows and not all strains are proteolytic/putrefactive, so the presence of the toxin will not necessarily be obvious. But more likely to be dissolved in the agar, while it can be inhaled.

II. 1981 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC273826/pdf/jcm00164-0142.pdf>

Medium for isolation of C. botulinum: egg yolk agar (EYA) containing cycloserine, sulfamethoxazole, and trimethoprim in various concentrations are needed.

In µg/ml:

Cycl 250

SMX 152

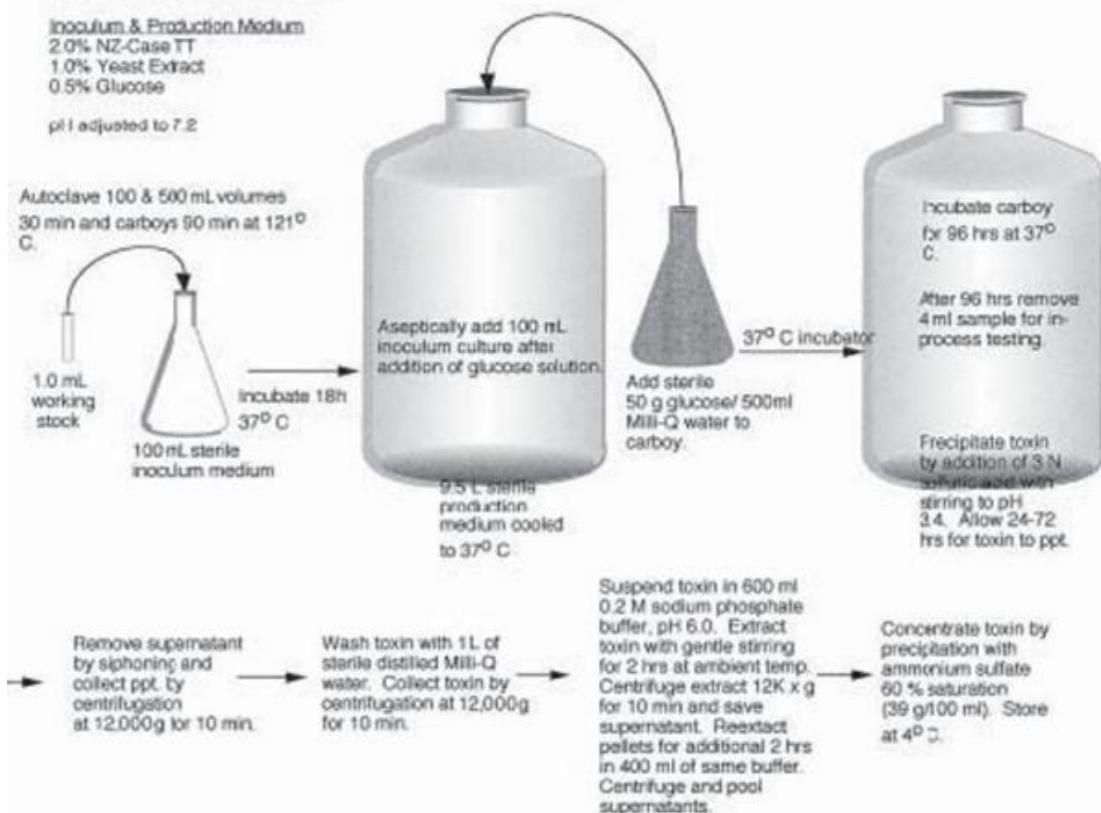
TMP 8

The use of cycloserine, sulfamethoxazole, and trimethoprim in CDC modified EYA yielded a medium (CBI) which is both selective and differential for C. botulinum types A, B, and F. This selective medium proved superior to the nonselective method of culturing on EYA and the selection method involving heat and alcohol treatment.

III. 2000 <https://sci-hub.se/https://doi.org/10.1385/1-59259-052-7:27>

This is a highly detailed and technical method requiring technological equipment. But includes a scheme and helpful notes. If you have required equipment and information this method can also be applied.

**Flow Chart of Type A Production**



**Possible How to Use:** As it is mentioned, Aum Shinrikyo tried to spray it. Methods like this can be used based on if the targeted material is in liquid form or gaseous. But in the both formations spray method is available. The substance is more dangerous when inhaled than by foodborne. Use masks and gloves while making and using the substance.